

- 1. PORTLAND CEMENT CONCRETE (PCC) SHALL BE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS WITH MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC). CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC.
- 2. CIRCUMSTANCES MAY REQUIRE THE NEED FOR SPECIAL TYPES OF TOP OF MANHOLE CONFIGURATIONS SUCH AS FLAT TOP, ABOVE GROUND, ETC. AS DIRECTED BY WASHOE COUNTY. DETAILED PLANS OF ANY SPECIAL TOP OF MANHOLE CONFIGURATIONS AND ASSOCIATED COLLARS MUST BE APPROVED BY THE COUNTY ENGINEER.
- 3. IN UNPAVED AREAS, IT SHALL BE NECESSARY TO SET THE MANHOLE RIM APPROXIMATELY 6 INCHES ABOVE THE SURROUNDING AREA. INSTALL A 6-INCH THICK RING OF CONCRETE, TAPERED AT A 3:1 SLOPE, FROM THE TOP, OUTSIDE EDGE OF THE COLLAR TO THE EXISTING GROUND SURFACE.
- 4. EXISTING SANITARY SEWER MANHOLE LIDS LOCATED IN GUTTER PANS, SHALL HAVE NEW WATERTIGHT FRAMES AND COVERS.
- 5. ALL GRADE RING JOINTS ARE TO BE GROUTED WITH NON-SHRINK GROUT HAVING THE FOLLOWING CHARACTERISTICS: 3000 PSI MINIMUM COMPRESSIVE STRENGTH @ 28 DAYS WITH A MINIMUM 6.25 SACKS OF TYPE II CEMENT (588 LBS) PER CUBIC YARD OF CONCRETE, A MAXIMUM WATER/CEMENT RATIO OF 0.45, 4.5-7.5% AIR ENTRAINMENT, AND SLUMP SHALL RANGE FROM A MINIMUM OF 1" TO A MAXIMUM OF 4". ALL MATERIAL SHALL CONFORM TO SSPWC.
- 6. ALL GRADE RINGS SHALL BE PORTLAND CEMENT CONCRETE. PVC GRADE RINGS ARE NOT ALLOWED.
- 7. MANHOLE COVER TO CLEARLY STATE "WASHOE COUNTY SEWER".

